

CLAIMS

- 1) Mechanical gearbox characterized in that it works on the grounds of differential gears utilized to obtain mechanical additions or subtractions of the speed of two or more rotating shafts all coming from one gearbox input shaft only.
- 2) Mechanical gearbox as CLAIMED IN CLAIM 1 includes the following parts: one gearbox input shaft; one gear train arranged on at least two to a maximum indefinite number of shafts; one DUAL-ACTION type clutch mounted on every single shaft coming from the gear train; one to an indefinite number of differential gears which boxes can be in sympathy either with cylindrical gears or internal gears or other types of gears; one output shaft coming from a differential gear.
- 3) DUAL-ACTION type clutches must determine two different states as follows:
State one: the two parts constituent a clutch are in sympathy with each-other allowing motion transmission along the shaft on which the clutch is mounted.
State two: the two parts constituent a clutch are not in sympathy with each-other, one of which is in sympathy with the gearbox, causing the complete locking in both rotating directions of one part of the shaft along which the clutch is mounted. Motion in both rotating directions is allowed to the other part of the clutch.